

Rpt. 4c.

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 12059.

Received at London Office

22 DEC 1944

Date of writing Report 15th Dec. 44 When handed in at Local Office 19th Dec. 44 Port of MANCHESTER.

No. in Survey held at MANCHESTER. Date, First Survey 21st Oct. 1942 Last Survey 12th Dec. 1944. Number of Visits Nine.

on the ^{Single} ~~Twin~~ ~~Triple~~ ~~Quadruple~~ Screw vessel *7 Empire Allenby* **3/5 EMPIRE ALLENBY** Tons {Gross Net

Built at **SUNDERLAND** By whom built **J.L. THOMPSON & CO. LTD** **YARD No 633** **N.E. Marine Co's. MACH. INSTALLING No 3074** When built 1944.

Owners Port belonging to 54090 Engine 54091

Oil Engines made at **ASHTON-U-LYNE**. By whom made **National Gas & O.E. Co. Ltd.** No. 54092 When made 1944. Generator

Generators made at **BIRMINGHAM**. By whom made **G.E.C. Co.** No. 56172/4/5/6. When made

No. of Sets 3 Engine Brake Horse Power 300 Nom. Horse Power as per Rule 86 Total Capacity of Generators 180 Kilowatts.

OIL ENGINES, &c.—Type of Engines **Vertical Heavy Oil Engine**. 2 or 4 stroke cycle 4 Single or double acting **Single**.

Maximum pressure in cylinders **800 lbs/sq** Diameter of cylinders **10"** Length of stroke **13"** No. of cylinders 5 No. of cranks 5

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge **12 3/8"** Is there a bearing between each crank **Yes**

Revolutions per minute **550** Flywheel dia. **3' 7"** Weight **2600 lbs.** Means of ignition **Compression** Kind of fuel used **Diesel Oil**

Crank Shaft, dia. of journals as per Rule **Approved.** as fitted **7.25"** Crank pin dia. **7"** Crank Webs Mid. length breadth **8 1/2"** Thickness parallel to axis **-** Mid. length thickness **2.15/16"** Thickness around eye hole **Solid**

Flywheel Shaft, diameter as per Rule **Flywheel mounted on crankshaft** as fitted **coupling** Intermediate Shafts, diameter as per Rule **-** as fitted **-** Thickness of cylinder liners **13/16"**

Is a governor or other arrangement fitted to prevent racing of the engine when declutched **Yes** Means of lubrication **Forced**

Are the cylinders fitted with safety valves **Yes** Are the exhaust pipes and silencers water cooled or lagged with non-conducting material **Water cooled**

Cooling Water Pumps, No. **One incorporated with engine** Is the sea suction provided with an efficient strainer which can be cleared within the vessel **-**

Lubricating Oil Pumps, No. and size **One incorporated with Engine**

Air Compressors, No. **-** No. of stages **-** Diameters **-** Stroke **-** Driven by **-**

Scavenging Air Pumps, No. **-** Diameter **-** Stroke **-** Driven by **G.3569**

AIR RECEIVERS:—Have they been made under Survey **Yes** State No. of Report or Certificate **Lloyd's No. 3027**

Is each receiver, which can be isolated, fitted with a safety valve as per Rule **Yes**

Can the internal surfaces of the receivers be examined **Yes** What means are provided for cleaning their inner surfaces **Handholes 5" x 3 1/2"**

Is there a drain arrangement fitted at the lowest part of each receiver **Yes**

High Pressure Air Receivers, No. **-** Cubic capacity of each **-** Internal diameter **-** thickness **-**

Seamless, lap welded or riveted longitudinal joint **-** Material **-** Range of tensile strength **-** Working pressure by Rules **-**

Starting Air Receivers, No. **One** Total cubic capacity **11 cu. ft.** Internal diameter **19 1/8"** thickness **7/16"**

Seamless, lap welded or riveted longitudinal joint **Riveted** Material **M.S.** Range of tensile strength **28/32 tons** Working pressure by Rules **350 lbs/sq. in.**

ELECTRIC GENERATORS:—Type **Compound Wound, continuous rating, fan ventilated**

Pressure of supply **220** volts. Full Load Current **820** Amperes. Direct or Alternating Current **D.C.**

If alternating current system, state the periodicity **-** Has the Automatic Governor been tested and found as per rule when full load is suddenly thrown on and off **Yes**

Generators, are they compounded as per rule **Yes** is an adjustable regulating resistance fitted in series with each shunt field **-** Are all terminals accessible, clearly marked, and furnished with sockets **Yes**

Are they so spaced or shielded that they cannot be accidentally earthed, short circuited, or touched **Yes** Are the lubricating arrangements of the generators as per Rule **Yes**

If the generators are under 100 kw. full load rating, have the Maker's supplied certificates of test **-** and do the results comply with the requirements **-**

If the generators are 100 kw. or over have they been built and tested under survey **Yes** *Certificates attached*

PLANS. Are approved plans forwarded herewith for Shafting **26.10.43.** Receivers **-** Separate Tanks **-**

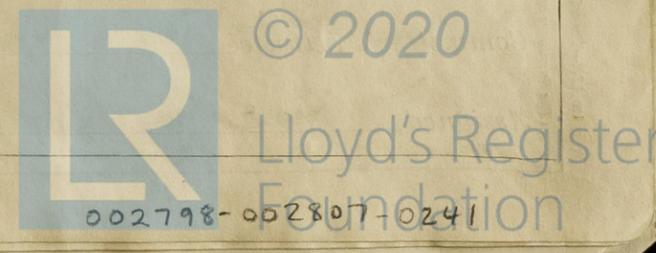
SPARE GEAR AS PER RULE REQUIREMENTS.

These 3 sets of Oil Engine/Elec. Generators have been satisfactorily fitted on board and tested under full load on 3/5 EMPIRE ALLENBY J.L. Thompson & Co. Ltd. Yard No 633

Awatt Newcastle on Tyne 10/6/45

The foregoing is a correct description,

R. K. Ewell Manufacturer. THE NATIONAL GAS AND OIL ENGINE CO. LTD.



Dates of Survey while building { During progress of work in shops - -) 21.10.42, 4.7.44, 25.7.44, 28.7.44, 8.9.44, 6.10.44, 19.10.44, 7.11.44, 12.12.44
 { During erection on board vessel - - -)
 Total No. of visits

Dates of Examination of principal parts - Cylinders 4.7.44. 28.7.44. Covers 8.9.44. Pistons - Piston rods -
 LLOYD'S 7349 21.10.42. 25.7.44. 6.10.44.
 Connecting rods 7349 21.10.42. Crank and Flywheel shafts 16.3.44, 14.10.43, 11.11.43. Intermediate shafts -
 7349 21.10.42. 2541. FH. 16.3.44.
 Crank and Flywheel shafts, Material O. H. Steel. Identification Marks 2153. FH. 14.10.43.
 2154. FH. 11.11.43.

Intermediate shafts, Material - Identification Marks -
 Identification marks on Air Receivers LLOYD'S No. 3027. LLOYD'S TEST. 550 lbs. W.P. 350 lbs. F.C.L. 8.11.44.

Is this machinery duplicate of a previous case Yes. If so, state name of vessel J. L. Thompson & Co., Yard No. 631.

General Remarks (State quality of workmanship, opinions as to class, &c. THIS ENGINE HAS BEEN CONSTRUCTED UNDER SPECIAL SURVEY OF TESTED MATERIALS AND IS IN ACCORDANCE WITH THE SECRETARY'S LETTERS, APPROVED PLANS AND RULE REQUIREMENTS. WORKMANSHIP AND MATERIALS ARE GOOD AND THE ENGINE, WHEN TESTED IN THE SHOP UNDER FULL LOAD CONDITIONS GAVE SATISFACTORY RESULTS. IN MY OPINION, THIS ENGINE IS SUITABLE TO BE PLACED ON BOARD A VESSEL CLASSED WITH THIS SOCIETY FOR THE PURPOSE INTENDED.

Im. 4.39. - Transfer. (MADE AND PRINTED IN ENGLAND)

The amount of Fee ... £ 26 : 5 0 When applied for, 19.12.44.
 Travelling Expenses (if any) £ 2 : 5 0 When received, 19.

Committee's Minute FRI. 20 JUL 1945

Assigned. See F.E. machy. sph

A. G. Smith
 Surveyor to Lloyd's Register of Shipping.



pt. 4c.
 Date of writing
 No. in Surveyor's Register Book.
 Built at
 Owners
 Oil Engine
 Generators
 No. of Sets
 H.P. ENG
 Maximum pressure
 Span of bearing
 Revolutions per minute
 Crank Shaft
 Flywheel S
 Is a governor
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 Lubricating
 Air Compressor
 Scavenging
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